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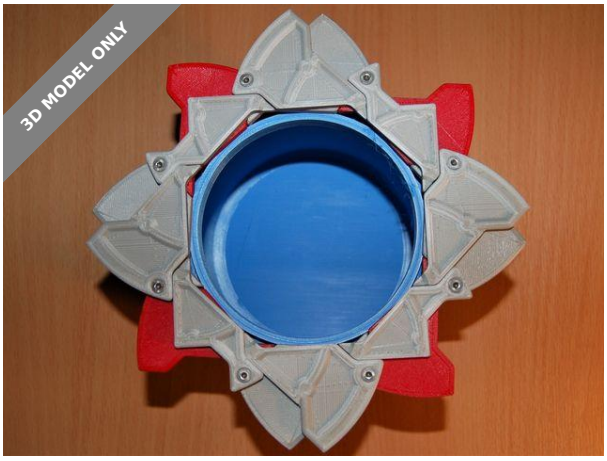

Octo-box V2

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VIEW IN BROWSER

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Summary

My second version of an 8 leaf, double layer iris box. Which uses screws for a much neater function and appearance.

Hobby & Makers > Organizers

Tags: box flower gift mechanical mechanism storagebox nosupport nosupportneeded giftbox irisbox iris nosupportsneeded nosupports requiresnosupports printablenosupports irisring irisdoor

This is an upgraded version of my Octo-box iris box. To open the box, twist the recessed handles in an anti-clockwise direction. No supports are required for the parts.

This was originally uploaded to Thingiverse in 2017, and I have now moved it here as well.

I have 14 other Iris boxes designs and I have an instructable describing them and how to print them.

I have also designed an improved version of this box, Octo-Iris Box.

The box (unscaled) is 80mm overall in diameter, has a 64mm wide container opening and is around 80mm tall. The part files are designed for M2x6 countersunk/flathead screws (as with all my other designs); 40 screws are required in total for one box. The parts can be scaled to use larger or smaller screws e.g. the larger printed examples are at 150% scale and use M3x8 screws.

There are three versions of the iris parts: plain, embossed, and skeletal. The embossed design is designated with ‘Dec’ in the part name and ‘Mech’ for the skeletal design.

There is also a shortened version of the container 'Short Container', which reduces the height of the box from about 80mm to 40mm.

Some of the images show the old lid type which has screws visible on top, which are not included in this design.

Part testing

Before printing off all the parts you should make sure the screw joints work correctly with your print settings. Print one 'top door' and one 'bottom door' parts. Check that your screws fit tightly in the holes in 'door top' but are free to rotate in the 'door base' holes and the head is flush with the bottom surface. You may need to use XY compensation to get a good fit.

Parts Printing

For the box you will need to print:

- 8x 'Top' parts
- 8x ‘Bottom door’
- 8x ‘Link’
- 1x ‘Container’

The 'Top door' and 'Top handle' parts can be assembled as you like on the top of the box although I recommend you position them in pairs (e.g. the smaller printed examples use 2, 4 and 8 handle parts).

Assembly

Step 1

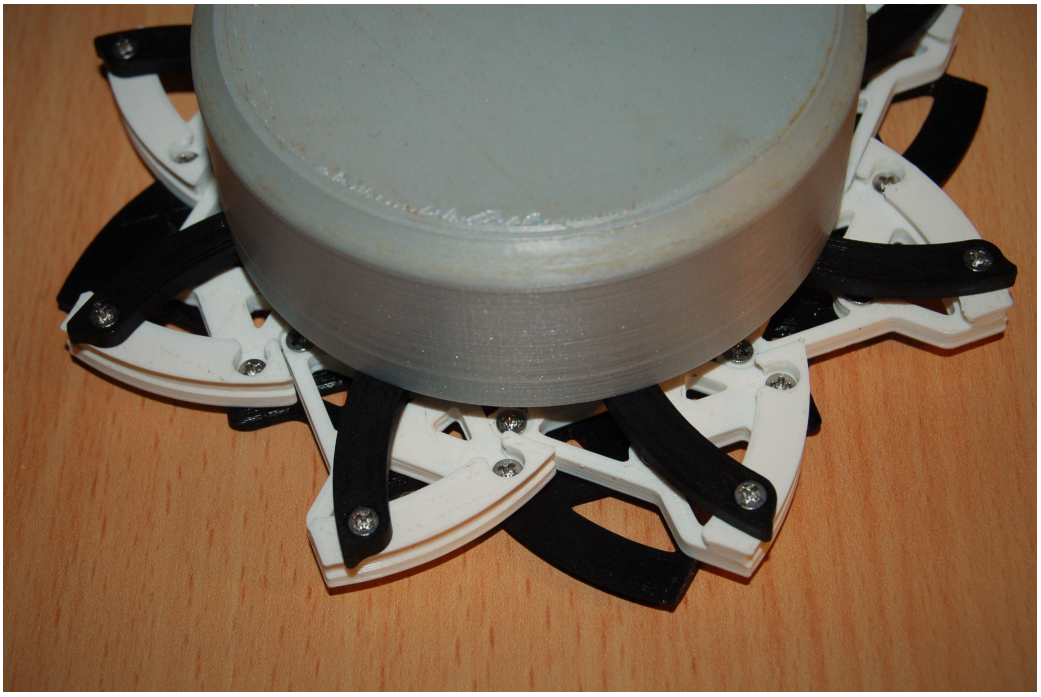
To assemble the box, begin by screwing the non pointed end of the links to the container.

Step 2

Next take the door top (and top handle) and door bottom parts and begin assembling them into the iris mechanism. Match the outer holes on the top parts to the outer holes on the base parts. The middle holes and holes on the points of the doors should also be matched together in a likewise fashion.

Continue assembling the doors, ideally in the closed position and keeping the screws straight to keep the box top as neat as possible. Be sure not to overtighten the screws, otherwise opening the box will be difficult. Once assembled, the iris mechanism should be free to open and close in your hands.

Step 3



Next open the iris fully and place it upside down on a flat surface then take the container assembly and place it upside down on top of the iris door mechanism. Finally screw the other ends of the links to the final holes in the base of the iris.

The 'Octo-Box' should now be fully functional. Let me know if you have any questions or problems with the design.

Model files

ob-top-handle-2-dec.stl

ob-link.stl

ob-bottom-door-2-dec.stl

ob-top-door-2.stl

ob-top-door-2-dec.stl

ob-top-handle-2-mech.stl

ob-top-door-2-mech.stl

ob-bottom-door-2-mech.stl

ob-top-handle-2.stl

ob-container.stl

ob-bottom-door-2.stl

ob-short-container.stl

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